



**UNITED STATES DEPARTMENT OF COMMERCE
Patent and Trademark Office**

Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231

U-P

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/041,698	03/13/98	HUFFER	S 47852

IM62/0504

HERBERT B. KEIL
KEIL & WEINKAUF
1101 CONNECTICUT AVENUE NW
WASHINGTON DC 20036

EXAMINER

LU RUTT, C

ART UNIT	PAPER NUMBER
----------	--------------

1713

6

DATE MAILED:

05/04/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/041,698

Applicant(s)

Huffer et al.

Examiner

C. Caixia Lu

Group Art Unit

1713

☒ Responsive to communication(s) filed on Feb 29, 2000

☒ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-14 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-14 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

DETAILED ACTION

Claim Rejections - 35 USC § 102/103

1. Claims 1, 2 and 12-14 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Shinosaki et al. (JP 07-025946, translated copy), Noristi et al. (US 5,244,854), Ebara et al. (EP 0 657 477 A2) or Yanagihara et al. (EP 0 712 869 A1) for the same rationale as set forth in the previous Office Action, Paper No. 4.

Claim Rejections - 35 USC § 103

2. Claims 3-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinosaki et al. (JP 07-025946, translated copy) or Noristi et al. (US 5,244,854) independently as set forth in the previous Office Action, Paper No. 4.

Response to Arguments

3. Applicant's arguments filed on February 29, 2000 have been fully considered but they are not persuasive.

A. Response to applicants' arguments that there is no evidence of record or reasoning based on logic and sound scientific reasoning to support the inherency of the polypropylene solubilities in xylene at various temperatures.

As stated in the specification of the instant application that the object of the instant alleged invention is to provide propylene homopolymers having low content of xylene soluble fractions and a low chlorine content, having long perfectly isotactic polymer sequences, which is reflected in a

higher melting point, a higher crystallization rate and a material rigidity. A skilled artisan would have understood that it is the isotacticities of polypropylene which control the solubility behavior, the higher is the isotacticity, the lower is the solubilities of polypropylene in xylene. Since all of the cited prior arts teach homopolypropylenes with high isotacticities, inherently, they will all expected to have low solubilities in xylene and likely to satisfy solubility criteria of the instant claims.

B. Response to applicants' arguments that the examiner has overlooked the fact that the instant claims require a process using a C₁-C₈-alkanol in the first stage and the extraction process with an inert solvent containing at least 5% by weight of titanium tetrachloride in the second stage.

Applicant's attention is directed to Noristi et al. col. 5, lines 9-21 which teaches "it is necessary to transform said magnesium compounds, prior to the reaction with the titanium compound, into magnesium dihalides or into compounds which are no longer capable of reducing the tetravalent titanium" and "the Mg compound with Mg-C bonds is reacted with compounds such as HCl, SiCl₄, chlorosilanes, HSiCl₃, Al-alkyl halides, water, alcohols" and col. 4, lines 55-56 of Noristi et al. which teaches the "magnesium halides are dissolved in solvents such as alcohols". The citations clearly indicate that Noristi et al. teach the use of a C₁-C₈-alkanol in the first stage.

Applicant's attention is also directed to col. 5, lines 3-9 of Noristi et al. which teaches "the treatment with the titanium compound can be repeated when the metal oxide support is impregnated with magnesium compounds containing Mg--C bonds". Although Noristi et al. do not particular teach extracting the solid obtained from the first stage with least 5% by weight of titanium tetrachloride in an inert solvent in the second stage, it would have been obvious to a skilled artisan that treating the solid obtained from the first stage with TiCl₄ and washing the treated product with

anhydrous hexane or heptane would have the same or substantially the same function as the extraction process with an inert solvent containing at least 5% by weight of titanium tetrachloride in the second stage of the instant unless there is showing of criticalities and unexpected results.

Applicant's attention is also directed to Shinosaki et al. page 23, paragraph (4); page 18, paragraph [0055]; and page 20-21, paragraph [0064] which teach a process of obtaining magnesium-compound-supporting inorganic carrier from a mixture consisting of a solution that contains a magnesium compound and an electron donor and a subsequent addition of titanium compound such as TiCl_4 . When the electron donor is an alcohol, this process clearly teach the use of alcohol in the first stage as one of the choice.

Applicant's attention is also directed to Shinosaki et al. page 22, paragraph (3) which teach treating the contact-reaction product of an inorganic carrier and an organomagnesium compound with a halogen-containing compound. It is clear to a skilled artisan that the purpose of treating the contact-reaction product of an inorganic carrier and an organomagnesium compound is to convert the non-Mg-Cl bond to Mg-Cl bond which serves the same function of as the extraction process of treating the contact product of the first stage with an inert solvent containing at least 5% by weight of titanium tetrachloride of the instant claims. Simply reverse the reaction sequences for the same purpose without showing criticalities and unexpected results is conventional.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Caixia Lu (Ph. D.) whose telephone number is (703) 306-3434. The examiner can normally be reached from 9:00 am to 3:30 pm.

If attempts to reach the examiner by telephone are unsuccessful and the matter is urgent, the examiner's supervisor, David Wu, can be reached at (703) 308-2450. The fax phone numbers for the organization where this application or proceeding is assigned are:

(703) 305-5408 (official)

(703) 305-3599 (official after final)

(703) 305-5885 (unofficial).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0651.

CL

May 3, 2000



DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700